RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/530,187

Source: pct

Date Processed by STIC: 4-12-05

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RAW SEQUENCE LISTING   DATE: 04/12/2005
PATENT APPLICATION: US/10/530,187   TIME: 08:49:26

Input Set : **A:\SEQ LISTING U.S. -VAI-14.txt**
Output Set: **N:\CRF4\04122005\J530187.raw**

```
   3 <110> APPLICANT: THE, Bin Tean
   4         TAKAHASHI, Masayuki
   6 <120> TITLE OF INVENTION: Molecular Subclassification of Kidney Tumors and the
Discovery of
   7         New Diagnostic Markers
   9 <130> FILE REFERENCE: 28927-0014
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/530,187
  12 <141> CURRENT FILING DATE: 2005-04-04
  14 <150> PRIOR APPLICATION NUMBER: PCT/US2003/031476
  15 <151> PRIOR FILING DATE: 2003-10-06
  17 <150> PRIOR APPLICATION NUMBER: US 60/415,775
  18 <151> PRIOR FILING DATE: 2002-10-04
  20 <160> NUMBER OF SEQ ID NOS: 296
  22 <170> SOFTWARE: PatentIn version 3.2
  24 <210> SEQ ID NO: 1
  25 <211> LENGTH: 343
  26 <212> TYPE: DNA
  27 <213> ORGANISM: homo sapiens
  29 <220> FEATURE:
  30 <221> NAME/KEY: misc_feature
  31 <222> LOCATION: (12)..(12)
  32 <223> OTHER INFORMATION: n is a, c, g, or t
  34 <220> FEATURE:
  35 <221> NAME/KEY: misc_feature
  36 <222> LOCATION: (56)..(56)
  37 <223> OTHER INFORMATION: n is a, c, g, or t
  39 <220> FEATURE:
  40 <221> NAME/KEY: misc_feature
  41 <222> LOCATION: (89)..(89)
  42 <223> OTHER INFORMATION: n is a, c, g, or t
  44 <220> FEATURE:
  45 <221> NAME/KEY: misc_feature
  46 <222> LOCATION: (91)..(92)
  47 <223> OTHER INFORMATION: n is a, c, g, or t
  49 <220> FEATURE:
  50 <221> NAME/KEY: misc_feature
  51 <222> LOCATION: (196)..(197)
  52 <223> OTHER INFORMATION: n is a, c, g, or t
  54 <220> FEATURE:
  55 <221> NAME/KEY: misc_feature
  56 <222> LOCATION: (239)..(239)
  57 <223> OTHER INFORMATION: n is a, c, g, or t
  59 <220> FEATURE:
  60 <221> NAME/KEY: misc_feature
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(ps: 6-7)

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 61 <222> LOCATION: (260)..(260)
 62 <223> OTHER INFORMATION: n is a, c, g, or t
 64 <220> FEATURE:
 65 <221> NAME/KEY: misc_feature
 66 <222> LOCATION: (276)..(276)
 67 <223> OTHER INFORMATION: n is a, c, g, or t
 69 <220> FEATURE:
 70 <221> NAME/KEY: misc_feature
 71 <222> LOCATION: (281)..(281)
 72 <223> OTHER INFORMATION: n is a, c, g, or t
 74 <220> FEATURE:
 75 <221> NAME/KEY: misc_feature
 76 <222> LOCATION: (314)..(314)
 77 <223> OTHER INFORMATION: n is a, c, g, or t
 79 <220> FEATURE:
 80 <221> NAME/KEY: misc_feature
 81 <222> LOCATION: (331)..(331)
 82 <223> OTHER INFORMATION: n is a, c, g, or t
 84 <400> SEQUENCE: 1
```

```
W--> 85 tttttttttt gntgaggttg cttttattcc aagaactctg tgagctccac ccaganacca    60
     87 ttggcgcctg cttgtgtccc caggggccnt nnacacaaca gcaccagcac catgagggcg   120
     89 ctctcgaccc acacaagccc tgggccccgt cagtcaatgt gactgagtcc gccattgagg   180
     91 ccagtctggc tggccnnaag tggtccctct gagtccccaa ctccctggcc agcaaggant   240
     93 gaagctccat gccccttggn ccacgcctct agagtntgag natatcctgc agcctcgatc   300
     95 tcaggaggca acgnatgcag ccccccctgca ntcaggaaag ggg                     343
```

```
 98 <210> SEQ ID NO: 2
 99 <211> LENGTH: 322
100 <212> TYPE: DNA
101 <213> ORGANISM: homo sapiens
103 <220> FEATURE:
104 <221> NAME/KEY: misc_feature
105 <222> LOCATION: (232)..(232)
106 <223> OTHER INFORMATION: n is a, c, g, or t
108 <220> FEATURE:
109 <221> NAME/KEY: misc_feature
110 <222> LOCATION: (234)..(234)
111 <223> OTHER INFORMATION: n is a, c, g, or t
113 <220> FEATURE:
114 <221> NAME/KEY: misc_feature
115 <222> LOCATION: (236)..(236)
116 <223> OTHER INFORMATION: n is a, c, g, or t
118 <220> FEATURE:
119 <221> NAME/KEY: misc_feature
120 <222> LOCATION: (248)..(248)
121 <223> OTHER INFORMATION: n is a, c, g, or t
123 <220> FEATURE:
124 <221> NAME/KEY: misc_feature
125 <222> LOCATION: (274)..(274)
126 <223> OTHER INFORMATION: n is a, c, g, or t
```

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128 <220> FEATURE:
129 <221> NAME/KEY: misc_feature
130 <222> LOCATION: (282)..(282)
131 <223> OTHER INFORMATION: n is a, c, g, or t
133 <400> SEQUENCE: 2
134 catagagggg ttggaggaag acggtctgag agaagaggcc gcgagaccca ggtgcacaga      60
136 agccccggcc ccacggctac ttcgcgcccc aggaggtgtg ggcagggccg ccgcggaggg     120
138 aggctgcagg tgtgtcagga ggcacctggc cggaggtcac cccctccttc tggaccctca     180
```
W--> `140 gcagagttga ggcgcctgca ccccagggga gccaggctgc tatctaaagg antntnaggt     240`
```
142 gcggtcantt ccgccactgg ccggtgtcgg ggtntgggaa ancctgagac cctaagctct     300
144 cctggctgct ctctcaaacc ct                                             322
147 <210> SEQ ID NO: 3
148 <211> LENGTH: 465
149 <212> TYPE: DNA
150 <213> ORGANISM: homo sapiens
152 <220> FEATURE:
153 <221> NAME/KEY: misc_feature
154 <222> LOCATION: (9)..(9)
155 <223> OTHER INFORMATION: n is a, c, g, or t
157 <220> FEATURE:
158 <221> NAME/KEY: misc_feature
159 <222> LOCATION: (274)..(274)
160 <223> OTHER INFORMATION: n is a, c, g, or t
162 <220> FEATURE:
163 <221> NAME/KEY: misc_feature
164 <222> LOCATION: (304)..(304)
165 <223> OTHER INFORMATION: n is a, c, g, or t
167 <220> FEATURE:
168 <221> NAME/KEY: misc_feature
169 <222> LOCATION: (348)..(348)
170 <223> OTHER INFORMATION: n is a, c, g, or t
172 <220> FEATURE:
173 <221> NAME/KEY: misc_feature
174 <222> LOCATION: (422)..(422)
175 <223> OTHER INFORMATION: n is a, c, g, or t
177 <220> FEATURE:
178 <221> NAME/KEY: misc_feature
179 <222> LOCATION: (457)..(457)
180 <223> OTHER INFORMATION: n is a, c, g, or t
182 <400> SEQUENCE: 3
```
W--> `183 agtttccant tttactgaat ttgtaattcc aagaaaattg ttggctagga ggagattgga      60`
```
185 aaactgaatt cacatcagat cctaatgaga agaaatcaat tttaactaag tgggtgaata     120
187 ggagttgtat tatttaatta gcatataatt tgaaagagtt cattagcttc acaacaggca     180
189 caatcaacac ttaggtaaag cacttaattt ttgcaaaact ttagaatact ggtcttgcat     240
191 gttcttgacc tctatggctg gtttattaaa accnggaaaa tcttccttgg attcttctaa     300
193 aggntttctc atccatgggg agggcttcct tggggctgcc agggctgnta gggaaacttc     360
195 cttccactgt gggggcaggg ttactggatt ctgggttttc aggggccttc agccagaggg     420
197 gnaagctggg gaaataaggg ctaggaggtc caagctnttc cccgg                     465
200 <210> SEQ ID NO: 4
```

file://C:\CRF4\Outhold\VsrJ530187.htm   4/12/05

```
201 <211> LENGTH: 411
202 <212> TYPE: DNA
203 <213> ORGANISM: homo sapiens
205 <220> FEATURE:
206 <221> NAME/KEY: misc_feature
207 <222> LOCATION: (355)..(355)
208 <223> OTHER INFORMATION: n is a, c, g, or t
210 <220> FEATURE:
211 <221> NAME/KEY: misc_feature
212 <222> LOCATION: (395)..(395)
213 <223> OTHER INFORMATION: n is a, c, g, or t
215 <400> SEQUENCE: 4
216 ttaagaggaa gaacatgtag ctcactttat tttccccaaa gatgtcttga aattttaatc       60
218 agttcagtca tccctatctt tcttcttaca tattaatcct atagattagt gactcttgta      120
220 taagacaaga aaaactaatg tgcttgtttg atatcagcac agatcagtct ctaagcagaa      180
222 gtgaaaatat gggaaaatga gttggaaagg aaaatgttat agaaaatagt aaagacaaac      240
224 catgggacca cctttctca gtgagagata cattgtcggg ggcagagtgc tggagagctg      300
W--> 226 ggcagagagg aacaaaatgt ctgacagcag gagccggagc ccagggagga aaccnagatg      360
228 gaaagggctc tgctcagact gactccatgt gggcncctta tgggataaag g               411
231 <210> SEQ ID NO: 5
232 <211> LENGTH: 434
233 <212> TYPE: DNA
234 <213> ORGANISM: homo sapiens
236 <400> SEQUENCE: 5
237 tgctgccaaa agcctttaat atgccctggt cccaggctgt gttcatgaaa gcggacacag       60
239 cagtgcttcc agcttcatgg ttcccaggtt caggttcctc ccagcggagg tgggagggca      120
241 gccctcacac ctggcacccc tgagtgcata ctcctggagg aagtcgttga gctgggcaca      180
243 ggctgctcgc tggcgttgtc tccggcacag gcgttcagag ggcatctcct cgatccagct      240
245 attcgagtcc agcaggtact gggggtgtcc tcgaggtcat aggtggcccc atctagaccc      300
247 atgatcaaat attctttccc aggttccaag cgaaggcgtc aggaggctcg aaccaggaag      360
249 ttgcgcatct gattagcagc ggccttgaca tccttggtga agtgcaggac ttgggtgatc      420
251 ttggtctcaa agag                                                        434
254 <210> SEQ ID NO: 6
255 <211> LENGTH: 373
256 <212> TYPE: DNA
257 <213> ORGANISM: homo sapiens
259 <400> SEQUENCE: 6
260 tttggtgttt tgaagataaa tgtcattagt ctatgataat agcatcatag gacaattagc       60
262 cattttagac ttgaccatat tttctctttt tagcatatag ccatcttgat atttaggtgg      120
264 gagactactc caatggagca acagtttcat tttacatgat tggatttaga aatttacaaa      180
266 ttttaaactc ataagaattc taaataattt gaaaatggaa acatttgacc cacagtctag      240
268 cagcataaat acatttataa aatacttcat tgttgatctt aggtcattga tttaaaacag      300
270 aatttggtga ctatgggcag gtggagggg ccagtgagga aggtataaaa gagaaatctt      360
272 tatgaattgt gtt                                                         373
275 <210> SEQ ID NO: 7
276 <211> LENGTH: 493
277 <212> TYPE: DNA
278 <213> ORGANISM: homo sapiens
280 <220> FEATURE:
```

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Input Set : A:\SEQ LISTING U.S. -VAI-14.txt
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```
  281 <221> NAME/KEY: misc_feature
  282 <222> LOCATION: (245)..(245)
  283 <223> OTHER INFORMATION: n is a, c, g, or t
  285 <220> FEATURE:
  286 <221> NAME/KEY: misc_feature
  287 <222> LOCATION: (473)..(473)
  288 <223> OTHER INFORMATION: n is a, c, g, or t
  290 <400> SEQUENCE: 7
  291 gggttcacac acaaacattc aggaagcagc actggtgtag acccactttg atcccgtaaa     60
  293 gtgtcctgag tgtccctctt cacatggcca cttcttttgc caggttcttt ggttccctgc    120
  295 ttgggataca ccagtcatca gcctcagagc tcatctgata atgtttgaag gctgacttgt    180
  297 taaaaactgg aagttttttcc taatagacct cagaagacaa agcccttta agtagaatga    240
W--> 299 tagcnatctg gttcccataa tccctgatta aaggagtaag aagattcagg atctcccttg    300
  301 gaaaaggtac ttttggcata ccaggaccga ggaaattttg gccaaggccg gtaaaaccca    360
  303 aaaacccagg cccaaaaagg gaaggcaatt tcccgggggga atttaatccc atccaccagg    420
  305 ggccgtttgg ggttgcagtt gggaagttaa tggtataaac taaaagaagg ccnggtcaat    480
  307 taaattctca ggg                                                      493
  310 <210> SEQ ID NO: 8
  311 <211> LENGTH: 475
  312 <212> TYPE: DNA
  313 <213> ORGANISM: homo sapiens
  315 <400> SEQUENCE: 8
  316 ctagttcttc ctcagtgaga gggaggtact gttctaccaa cagctctgat ttggtgagtg     60
  318 catttttctac gccactgctc acgagctgca tcatccgact ccccaagact gtgttaatgc    120
  320 tgccactgac cacagacttg gtcttctcca cactgccagt cactgcccct ttggtcttgt    180
  322 ccatcacccc tgtgatcgtg ctggccacag aatccttggc cccagtcaca gtagtcgtca    240
  324 cagcatcttt tgccccagtc acagcgcctt tggagttggc aacaatctga gttgatggct    300
  326 gattcagaat aggcagtctc tcctcaatcc tgtctagccc cttacaggca taggtattgg    360
  328 caactgcaat ttgcggctct agcttctgga tgatgggcag agcactggtc atggccacgg    420
  330 aagtgatggt cttcaaacgg ttctctgcca tctcacacac agacttcagg taggg          475
  333 <210> SEQ ID NO: 9
  334 <211> LENGTH: 267
  335 <212> TYPE: DNA
  336 <213> ORGANISM: homo sapiens
  338 <220> FEATURE:
  339 <221> NAME/KEY: misc_feature
  340 <222> LOCATION: (240)..(240)
  341 <223> OTHER INFORMATION: n is a, c, g, or t
  343 <220> FEATURE:
  344 <221> NAME/KEY: misc_feature
  345 <222> LOCATION: (245)..(245)
  346 <223> OTHER INFORMATION: n is a, c, g, or t
  348 <400> SEQUENCE: 9
  349 agagttctta tcgctgttta ttgaaacctc ccatcaaaga aaagtgtggg aggcaagaag     60
  351 gggaggactt ctcatcttgt taagactcag tcttgttagg actgagccag gggatatcag    120
  353 gggacctcag gggaagagga ccgggacagt gggggaaggt ggccagtggg gaagggctag    180
W--> 355 acagaagaat ggcagggctg ggttgcaggg agaacaaggg cagggatggc tgaacctttn    240
  357 aactngccag ggctgggcag gaggctc                                        267
  360 <210> SEQ ID NO: 10
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Input Set : A:\SEQ LISTING U.S. -VAI-14.txt
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Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

```
Seq#:1; N Pos. 12,55,89,91,92,196,197,239,260,276,281,314,331
Seq#:2; N Pos. 232,234,236,248,274,282
Seq#:3; N Pos. 9,274,304,348,422,457
Seq#:4; N Pos. 355,395
Seq#:7; N Pos. 245,473
Seq#:9; N Pos. 240,245
Seq#:10; N Pos. 27,33,34,56,58,60,62,63,64,65,66,203,297,301,319,359,395
Seq#:11; N Pos. 27,39,234,387,428,438,450
Seq#:12; N Pos. 200,231,239,244,268,274,281,288
Seq#:13; N Pos. 4,34,84,87,226
Seq#:14; N Pos. 134
Seq#:16; N Pos. 380,403
Seq#:17; N Pos. 485,527,536,559
Seq#:20; N Pos. 376,450,511
Seq#:21; N Pos. 15,18,95,256,271,298,322,356,375
Seq#:23; N Pos. 114,123,154,166,204,207,270,310,315,346,420
Seq#:27; N Pos. 208,409
Seq#:28; N Pos. 278,367,377
Seq#:29; N Pos. 34,35,36,37,139,143,245,348,363
Seq#:30; N Pos. 211,217,249,262
Seq#:31; N Pos. 461,515,523
Seq#:32; N Pos. 157,264,302,307,318
Seq#:33; N Pos. 249,294
Seq#:38; N Pos. 393,441
Seq#:39; N Pos. 165,263,273,381
Seq#:40; N Pos. 171,313,321,354,359
Seq#:45; N Pos. 408
Seq#:49; N Pos. 5,9,97,142,253,272,287,309,392,423
Seq#:53; N Pos. 311
Seq#:57; N Pos. 15,185,225,242
Seq#:58; N Pos. 269,279,359,365
Seq#:61; N Pos. 162,180,245,284,305,319,352,371,413,422
Seq#:62; N Pos. 48,217,240,249,266,274,277
Seq#:65; N Pos. 167
Seq#:66; N Pos. 295
Seq#:67; N Pos. 208
Seq#:68; N Pos. 3,10,39,416,424
Seq#:69; N Pos. 399,412,419,435,452
Seq#:71; N Pos. 6,8,75,139,202,282
Seq#:73; N Pos. 81,85,152 .
Seq#:74; N Pos. 433
Seq#:75; N Pos. 232,252,259,273,299
Seq#:77; N Pos. 332
Seq#:78; N Pos. 193,230,345,396,413,433,450,458
```

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Input Set : **A:\SEQ LISTING U.S. -VAI-14.txt**
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```
Seq#:79; N Pos. 3,5,160,336
Seq#:81; N Pos. 302,420,466,485,494,506
Seq#:82; N Pos. 1,2,3,4,187,205,270,317,322,360
Seq#:84; N Pos. 395
Seq#:85; N Pos. 250,423
Seq#:86; N Pos. 355
Seq#:92; N Pos. 147,309,349,365,372,380
```

```
L:11 M:270 C: Current Application Number differs, Replaced Current Application Number
L:85 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
M:341 Repeated in SeqNo=1
L:140 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:180
M:341 Repeated in SeqNo=2
L:183 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
M:341 Repeated in SeqNo=3
L:226 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:300
M:341 Repeated in SeqNo=4
L:299 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:240
M:341 Repeated in SeqNo=7
L:355 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:180
M:341 Repeated in SeqNo=9
L:426 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0
M:341 Repeated in SeqNo=10
L:482 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0
M:341 Repeated in SeqNo=11
L:551 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:180
M:341 Repeated in SeqNo=12
L:587 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0
M:341 Repeated in SeqNo=13
L:615 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:120
L:679 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:360
L:724 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:480
M:341 Repeated in SeqNo=17
L:796 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:360
M:341 Repeated in SeqNo=20
L:854 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0
M:341 Repeated in SeqNo=21
L:953 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:60
M:341 Repeated in SeqNo=23
L:1057 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:180
M:341 Repeated in SeqNo=27
L:1097 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:240
M:341 Repeated in SeqNo=28
L:1140 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:0
M:341 Repeated in SeqNo=29
L:1187 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:180
M:341 Repeated in SeqNo=30
L:1227 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:420
M:341 Repeated in SeqNo=31
L:1267 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:120
M:341 Repeated in SeqNo=32
L:1300 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:240
L:1415 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38 after pos.:360
M:341 Repeated in SeqNo=38
L:1450 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:120
M:341 Repeated in SeqNo=39
```

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L:1496 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:120
M:341 Repeated in SeqNo=40
L:1616 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 after pos.:360